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WHAT IS CLAIMED AS NEW AND IS DESIRED TO BE SECURED BY  
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09813988-070501

1. In a liquid crystal display element comprising a front side substrate having a front side electrode, a rear side substrate having a rear side electrode and a liquid crystal layer interposed therebetween wherein the liquid crystal layer exhibits a plurality of display states; a display state is changed by a voltage applied across the electrodes, and at least one state among the display states is maintained stably, the liquid crystal display element being characterized in that at least a part of the front side electrode and the front side substrate is transparent; the front side electrode or the rear side electrode is divided into a plurality of electrode regions on its substrate surface, and the maximum space  $a$  ( $\mu\text{m}$ ) between adjacent electrode regions and the thickness  $d$  ( $\mu\text{m}$ ) of the liquid crystal layer satisfy a relational formula of  $1.0 \cdot d \leq a \leq 4.0 \cdot d$ .

2. In a liquid crystal display element comprising a front side substrate having a front side electrode, a rear side substrate having a rear side electrode and a liquid crystal layer interposed therebetween wherein the liquid crystal layer exhibits a plurality of display states; a display state is changed by a voltage applied across the electrodes, and at least one state among the display states is maintained stably, the liquid crystal display element being characterized in that at least a

part of the front side electrode and the front side substrate is transparent; the front side electrode or the rear side electrode is divided into a plurality of electrode regions on its substrate surface; a chiral  
5 nematic liquid crystal is used for the liquid crystal layer; the maximum space  $a$  ( $\mu\text{m}$ ) between adjacent electrode regions, the thickness  $d$  ( $\mu\text{m}$ ) of the liquid crystal layer, and the maximum effective voltage  $V_{\text{max}}$  (V) of a voltage applied to the front side electrode and the  
10 rear side electrode satisfy a relational formula of  $1.0 \cdot d \leq a \leq d \cdot V_{\text{max}}/10$ .

3. The liquid crystal display element according to Claim 2, wherein  $V_{\text{max}}$  is 48 V or less and  $2.5\mu\text{m} \leq d \leq 6.0\mu\text{m}$ .

4. The liquid crystal display element according to Claim  
15 2, wherein at least a part of the front side electrode comprises a plurality of segment electrodes, and the rear side electrode is a single common electrode arranged so as to correspond to all the segment electrodes, or the rear side electrode is a plurality of common electrodes  
20 arranged so as to correspond to each plurality of segment electrodes.

5. The liquid crystal display element according to Claim 2, wherein at least a part of the front side electrode is stripe-like electrodes and at least a part of the rear  
25 electrode is stripe-like electrodes, said stripe-like electrodes of the front side electrode and the rear side electrode being arranged so as to be crossed in the

substrate plane.

6. The liquid crystal display element according to Claim 5, wherein the disposition density  $L_d$  (number/mm) of the stripe-like electrodes is  $2 \leq L_d \leq 15$ .

5 7. The liquid crystal display element according to Claim 4, wherein the rear side electrode is a reflective electrode.

8. The liquid crystal display element according to Claim 5 wherein the rear side electrode is a reflective  
10 electrode.

9. The liquid crystal display element according to Claim 2 wherein a voltage pulse having a pulse width  $T$  (ms) of  $10 \text{ ms} \leq T \leq 1000$  is applied to the liquid crystal layer.

10. A liquid crystal display apparatus characterized in  
15 that the liquid crystal display element described in Claim 2 is used; a segment display and/or a dot matrix display is carried out, and figures and characters are displayed.

11. The liquid crystal display apparatus according to  
20 Claim 10, which is used for a public display apparatus.

12. The liquid crystal display apparatus according to Claim 11, wherein a price of an article and/or time is displayed.

13. The liquid crystal display apparatus according to  
25 Claim 10, which is used for a display apparatus for a vehicle.

14. The liquid crystal display apparatus according to

Claim 13, wherein a speed of a vehicle and/or time is displayed.

15. In a liquid crystal display element comprising a front side substrate having a front side electrode, a rear side substrate having a rear side electrode and a liquid crystal layer interposed therebetween wherein the liquid crystal layer exhibits a plurality of display states; a display state is changed by a voltage applied across the electrodes, and at least one state among the display states is maintained stably, the liquid crystal display element being characterized in that at least a part of the front side electrode and the front side substrate is transparent; the front side electrode or the rear side electrode is divided into a plurality of electrode regions on its substrate surface; an antiferroelectric liquid crystal is used for the liquid crystal layer, and the maximum space  $a$  ( $\mu\text{m}$ ) between adjacent electrode regions, the thickness  $d$  ( $\mu\text{m}$ ) of the liquid crystal layer, and the maximum voltage  $V_{OP}$  (V) of a voltage applied to the front side electrode and the rear side electrode satisfy a relational formula of  $1.0 \cdot d \leq a \leq d \cdot V_{OP} / 40$ .

16. The liquid crystal display element according to Claim 15, wherein  $V_{OP}$  is 120 V or less and  $0.5 \mu\text{m} \leq d \leq 6.0 \mu\text{m}$ .

17. The liquid crystal display element according to Claim 15, wherein at least a part of the front side electrode comprises a plurality of segment electrodes, and the rear

side electrode is a common electrode arranged so as to correspond to all the segment electrodes, or the rear side electrode is a common electrode arranged so as to correspond to each plurality of segment electrodes.

5 18. The liquid crystal display element according to Claim 15, wherein at least a part of the front side electrode is stripe-like electrodes and at least a part of the rear electrode is stripe-like electrodes, said stripe-like electrodes of the front side electrode and the rear side  
10 electrode being arranged so as to be crossed in the substrate plane to effect a dot matrix display.

19. The liquid crystal display element according to Claim 17, wherein the rear side electrode is a reflective electrode.

15 20. The liquid crystal display element according to Claim 18, wherein the rear side electrode is a reflective electrode.

21. A liquid crystal display apparatus wherein the liquid crystal display element described in Claim 15 is used for  
20 a display apparatus of a vehicle.